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DETERMINING THE NEED FOR THE FORMATION OF EMPLOYEE PHYSICAL
ACTIVITY PROGRAMS WITHIN LARGE CORPORATIONS

by



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A THESIS

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ABSTRACT

The purpose of this study was to investigate employee attitudes toward recreation and fitness programs, employee monetary contributions, possible activities and preferred activity periods.

A questionnaire was specifically designed for the study. A majority of the questions were designed to follow a Likert five point scale. The questionnaire was designed to allow for computer analysis of all sections.

The sample consisted of 235 business employees, 110 males and 125 females of varying ages, randomly selected from one company's total employee population of approximately 2,000.

Within the limitations of this study, the following conclusions have been made. There was a highly favourable response toward a physical activity program for corporation personnel. The results showed that 88.1 per cent were in favour of activity programs.

A company should provide some form of a physical activity program, this view was held by 81.2 per cent of the employees.

The employees were willing to pay at least \$1.55 per employee per month or approximately \$20.00 per year.

Results indicated that the facility would be in use all days of the work week with at least 38.3 per cent of the employees, and that all periods of the day from 8:00 a.m. till 5:00 p.m. would be used by at least 2.6 per cent of the employees with no one period being overcrowded.

If only a gymnasium could be provided, 91.3 per cent still indicated that they would support the program.

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CHAPTER I

INTRODUCTION

Many years ago, employees spent long demanding hours on the job and when they returned home, they relaxed. There was very little leisure time and recreation was confined to Sundays.

Gradually, the employee has spent less and less time at work, consequently his job became less physically and mentally demanding. This has allowed for a greater amount of time spent in recreational pursuits.

Romney (1) stated in 1945 that the shorter work week is now a reality. However, it appears that the work week will continue to get shorter. Man's leisure time has greatly increased due to the shorter work week coinciding with rapid technological advancement concerning all facets of comfortable living.

Physical recreation has become a major feature in man's use of leisure time. Many corporations, for varied reasons, feel that it is now becoming their responsibility to provide some form of physical recreation for their employees.

As a result, company physical recreation facilities with well qualified supervision and a variety of programs are becoming a prime feature of employer-employee relationships in many countries of the world. The ineffectual use of leisure time has become a major problem

in many parts of the world today, as has the sedentary nature of tasks performed by corporation personnel. The latter problem may lead to numerous health hazards such as cardiovascular diseases.

A solution to these problems may be found in the introduction of recreation and fitness activities which have great carryover value through employee participation in physical activity programs operated within a corporate facility situated in the business complex. Greater provision must be made for the ever increasing number of Canadians who are becoming more aware of the benefits of good physical condition. A facility located within large office complexes can afford easier accessibility to the activity program.

There has been little research to indicate the percentage of employees interested in such a facility or whether it is feasible economically. This study attempted to determine the attitudes of the employees of a large office complex toward their participation in a physical activity program at their place of work, and the feasibility of such an undertaking.

Statment of the Problem

This study was undertaken in order to determine the feasibility of a recreation and fitness program for employees operated within a facility located in an office complex. Basically, the intention was to analyze the possibility of corporations in Canada implementing a significant employee program which can be conducted and operated within the normal work day.

Purpose of the Study

The purpose of the study was to analyze the enquiries included as follows:

- A. To investigate employee attitudes to determine if there is a need for recreation and fitness programs.
- B. To determine the amount of money employees would voluntarily contribute towards the facility and program operation.
- C. The study was designed to discover which activities participants would like to have included in a recreation and fitness program.
- D. The study was designed to determine periods of the day participants preferred to use the facilities.

The study also attempted to determine if such things as morale, efficiency, productivity, and satisfaction would increase because of participation in a recreation and fitness program.

Justification of the Study

With the advent of increased leisure time, many people are turning to various forms of recreation as a means of fulfilling their leisure needs.

As technology develops, man's work patterns are becoming more sedentary. These work patterns lead to the development of many problems for business organizations, such as: fatigue, boredom, lack of productivity and morale, absenteeism, and decreasing physical fitness. These, in turn effect the health of the individual to the detriment of both employer and employee.

It is believed that many companies can counteract the sedentary work patterns of their employees by introducing a physical activity program which can be operated in such a way that the facilities are easily available in terms of both time and location. The employee should benefit greatly from the program in terms of physical and mental health and will also benefit by increased morale, and hopefully productivity, and decreased absenteeism and fatigue. An alleviation, in part, of the great amount of stress placed on business executives is another important consideration for the employer. Hopefully, companies can then expect their executives to be in better health, and as a result, their value to the company will be greatly enhanced.

It is assumed that this study can supply some needed answers for questions that Canadian companies would ask about the development of a company physical activity program.

It was believed that Canadian corporations were lagging in terms of presenting supervised employee programs under qualified leadership.

A study of this nature has not been undertaken or reported before in Canada, and it was felt that because of world-wide interest focused on leisure time activities, this would be a beneficial and worthwhile study of some importance to business and to physical education.

It is believed that more people would continue with a physical recreation program presented by their company due to the convenience of the proximity of the recreation facility to the place of work. It assumes never having to leave the building in order to participate.

If this study proves to be of value, the implementation of such programs across Canada will result in more jobs being made available for trained physical education and recreation personnel, with a resultant increase in job opportunities for these professions.

Limitations

The following limitations are recognized:

1. There appears to be a lack of any real specific published material related to a physical activity program within companies.

2. There is also a lack of conclusive, statistical evidence concerning employee recreation and its effect on productivity and morale, as well as absenteeism.

3. The fact that physical fitness has not been shown conclusively to prevent cardiovascular problems.

4. Many corporations were unwilling to have their employees complete the questionnaire for fear of increased employee bargaining power.

5. There are many other possibilities for physical recreation programs, such as, the aspect of company acreages or resorts. This study merely investigates one such possibility.

Delimitations

1. A total of three hundred questionnaires were given out.

2. The study was limited to a single large company situated in the City of Edmonton, Canada.

Definition of Terms

Industrial recreation: the term used to describe those recreation activities which are provided to satisfy the particular needs and desires of employees of industrial plants. (2:5)

Physical Activity Programs: the term used to describe those physical activities which are provided within the company building to satisfy the particular needs and desires of employees of business firms.

Productivity: measured as output per unit of labour input. (3)

Morale: prevailing mood and spirit conducive to willing and dependable performance, steady self-control and courageous, determined conduct. (4)

Absenteeism: a reflection of effects upon health as well as boredom of the job. (5:33)

Cardiovascular Problems: related to such things are hypertension, angina, and infarcts.

Sedentary Work Patterns: a kind of "mental" work in which control, timing, skill, direction of activities, and decision making are more important than muscular force. (5:43)

Fatigue: the term refers to a large number of residual effects of work. That is, it refers to any inhibitory effects of sedentary or muscular activity which carry over to the period after work ceases, and also to effects which accumulate during a period of continuous work. (5:121)

Work Out: for the purpose of this study, the term workout is defined as a period of strenuous exercise.

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CHAPTER II

REVIEW OF THE LITERATURE

The determination of the need for employee physical activity programs was to be studied together with an examination of past endeavours in this area. The literature on this subject was therefore considered under three areas, namely: historical, benefits to employer and employee, and cardiovascular problems related to sedentary life. It was assumed that by looking at these three areas, a firm understanding of the need for employee programs would be evident. The literature on all but the cardiovascular problem section is scarce. The area in which this scarcity of information was most acute was with the locating of materials related to the existence and magnitude of the benefits to employer and employee. The benefits are intangible, and thus extremely difficult to measure.

Historical

The historical investigation showed that employee recreation programs have been a part of company life in the United States since the late 1800's.

An article (1) in The Annals of the American Academy of Political and Sociological Science stated that:

The earliest provision of recreation by an industry in the United States was that of The Peacedale Manufacturing Company of Peacedale, Rhode Island, in 1854. With the turn of the century, activity

in industrial recreation increased.

Anderson (2) stated that:

The Carnegie Steel Corporation established a company recreation center in 1920, and by 1921 had provided five centers, twelve athletic fields, and fifteen playgrounds, all well equipped. Also in 1920, the Goodyear Company of Akron, Ohio, had a seven storey building used entirely for recreational purposes.

Many Japanese companies have extensive recreation programs for their employees. An example of such a company is the Sony Corporation. This company has 14,193 employees for whom are provided various recreational facilities. Some of these facilities were outlined in a letter received from Mr. Morimoto, Assistant Manager, Industrial Relations. The facilities included: gymnasiums, tennis courts, a swimming pool, a recreational building for women, a club-style building for social functions, a playground for outdoor sports which employees use on holidays, and a hotel and inn-style facilities by the seaside and at a mountain resort which are available for use by employees' families. Employees are also entitled to make overnight trips to a particular resort location, in groups, once a year. Employees contribute a nominal fee for use of the seaside and mountain resorts. The remaining facilities are run by the company without imposing any financial burden on the employees.

An article in Time magazine (3) referred to the fringe benefits given to the 38,500 employees of Toyota Motor Company of Japan. Toyota provides free bus transportation to and from work for employees, and pays for the gasoline used by workers who commute in their own cars.

The company maintains a 344 bed hospital with twenty doctors in attendance. Toyota also provides a plentitude of sports and recreational facilities: swimming pools, meeting halls, tennis courts, golf courses, baseball diamonds, and rugby fields. Classes are offered in various activities. For vacationing employees, Toyota operates a string of mountain and seaside resorts which charge approximately \$1.40 a day, which includes meals. These benefits are motivated less by union pressure than by management's desire to reinforce worker loyalty.

In an article about Japan (4) it was stated:

The welfare and recreational facilities provided by Japanese enterprises are important factors for a worker to weigh before he decides on his lifetime employer.

The following statements illustrate the rapid growth of employee recreation in the United States. More and more money each year is being spent on employee recreation programs in that country.

Anderson (5) writing his book on industrial recreation said that:

According to the Wall Street Journal, the estimated expenditures by business and industry for employee recreation for the year 1953 amounted to eight hundred million dollars. This amount represented a fifteen percent increase over 1952, and a full fifty per cent over the estimate for 1948.

According to a report in The Annals of the American Academy of Political and Sociological Science (1), approximately twenty-five thousand companies in North America now provide activities of some nature for their employees, and in 1957 spent over one billion dollars in support of their programs. "Industrial recreation offers a

challenge to American business to plan for employees' leisure as ardently as they do for their productivity".

Most Canadian corporations are sadly lagging behind the U.S. and Japan in terms of providing company programs for their employees.

Benefits to Employer and Employee

Many industrial psychologists, sociologists, and personnel managers have suggested that employee physical recreation programs have much to offer in the way of benefits to the employer and employee. They stated that the employee's loyalty to the company can be strengthened and, as a result of the program, he can be better prepared for efficient work.

Thus, the employer can gain employees hopefully willing to work to their greatest capacity for their company.

The experts suggested that productivity, efficiency and morale would have a reasonable chance to increase.

Anderson (2) indicated that industry can assist workers to find relaxation by providing an adequate employee recreation program. The employee who has been given this opportunity to lose himself in an activity and find complete mental relaxation from the worries of his job returns to his work with a real zest. He is less susceptible to nervous disorders and is more efficient in his work. He has had the change of pace which is so necessary in the complex society in which he goes about his daily routine. Anderson also related that:

Employee recreation builds morale, increases worker efficiency, and reduces employee turnover and absenteeism.

The report of a two year study by the Industrial Health Board of Great Britian indicates that a lack of sufficient recreation may be the cause of at least twenty per cent of all absenteeism.

In a study by the National Industrial Recreation Association, reported in a book by Lobsenz (6), it was shown that employees of companies with recreation programs had a lower rate of absenteeism, and a higher rate of job efficiency and morale.

An article in Personnel Journal (7) on employee recreation stated that employee recreation programs, in terms of the productivity versus cost ratio, have proved to be extraordinarily effective. In dollars and cents terms, industrial leaders extol recreation as an important and even an economical way to increase productivity, reduce turnover, lessen absenteeism, recruit new top-notch personnel, and retain trained employees. With improved employee morale, management gets more work for the same pay.

Textile World (8) in an article on employee relations said:

Lower turnover, highly talented executives, low absenteeism, and high morale all combine to enhance productivity. The obvious immediate benefit is a favourable effect on corporate profits.

A Recreation Management article (9) stated that:

Company recreation programs of the future will be built around a diversified executive and employee fitness program. This will be achieved through fine company facilities and programs.

Now is the time for management to throw off the bonds of indecision and recognize that the provision of recreation is their responsibility.

In another Recreation Management article (10), it was reported that:

N.A.S.A. ran an experiment with forty men at a high executive level for a six month exercise study. Preliminary indications are that N.A.S.A. participants "were more able to sustain higher levels of productivity during the day".

Robert L. Fleck, M.D. (11) Chief, National Aeronautics and Space Administration Headquarters, Employee Health Unit, stated that undocumented discussion with subjects, their associates and superiors revealed a definite impression of increased productivity throughout the work day. This has lead Fleck to believe that an exercise program is a definite asset to management, not just a fringe benefit for the employee.

The above information was obtained by Fleck from a one year study he administered on the effect improved physical fitness has on the tolerance of job stress. The subsequent report was prepared for the Director of Occupational Medicine, National Aeronautics and Space Administration, Washington, D.C.

Lobsenz (6) stated that, "The Eastman Kodak Company plant includes a five storey recreation building which can accommodate seven thousand pleasure bent employees at one time".

James Moyer (12), the executive secretary of the Kodak Park Athletic Association, supplied some pertinent information regarding their association. Each employee pays \$1.00 per year for which the company provides office space and indoor and outdoor facilities. Upkeep of these facilities plus the salaries of all administrative personnel (executive secretary and twenty staff people) are paid for by the company.

The recreation center contains an auditorium seating 2,424 persons, a gymnasium, a twenty-lane bowling room, seventeen billiard tables, a fifty foot rifle and pistol range with seven firing stations, a physical fitness room, two squash courts, eight meeting rooms, and a retirees' room equipped with color television, billiard table, library, lounge and card playing area.

Outdoor facilities include seven softball fields, of which two are lighted, ten tennis courts, and numerous horseshoe pits located throughout the plant area.

Mr. Moyer stated that he felt the Eastman Kodak Company had one of the lowest rates of employee turnover of any company in the United States. Salaries, working conditions, and the provisions of recreation are the three major reasons for this record.

He further stated that it is certainly easy to see how employers and employees benefit from such a tremendous program. Mr. Moyer concluded his correspondence with the company phrase, "Thank you for thinking of Eastman Kodak when you think of 'Industrial Recreation'". This motto clearly indicates this company's sincere interest in the welfare of its employees.

Management is becoming increasingly aware of the problems created by sedentary jobs, and is attempting to solve these problems.

An article in Dun's Review (13) reported, "If a man's job is sedentary, his tiredness may be merely due to a lack of exercise".

Miller (14) said, "Management has learned to pay some attention to the physical and mental health of the workers as factors in pro-

ductivity".

Anderson (2) stated that:

A business enterprise is not a philanthropic organization. It is operated for profit. In order to realize a fair margin of profit, in a highly competitive market, most companies must analyze carefully all proposed expenditures. This is especially true in the area of employee services. Before approving the allocation of funds for these services, the company board of directors must be reasonably assured that the company will receive some benefit from the investment. Above all, there must be assurance that there is a need for such services.

This appears as a reasonable and valid point of view for management to take. However, indications are that most companies feel that recreational services are an extremely sound investment.

Cardiovascular Problems Related to Sedentary Life

Automation, while of great value in some respects, has led people into a sedentary life-style that previous generations did not experience. It is this sedentary life-style that has resulted in many health problems.

Out of these problems has grown a great deal of research concerning physical fitness and its effect on a person's general health and well-being.

J.M. Chevrette (15) reported that, "The American Medical Association, not noted for such rash statements, as early as 1964 recommended thirty to sixty minutes of exercise daily to maintain physical capacities".

This recommendation is not heeded by today's business population. This fact was well illustrated by F.R. Eastwood (16) when he said:

Management today have the tendency to refrain from any activity which causes perspiration. They have been so bound up by the mechanizations of life that they are all reaching for a push button instead of a bowling ball or a baseball. This lethargy has tended to lower resistance to diseases of middle-age such as ulcers, hypertension, high blood pressure, and nervous exhaustion. These infirmities are a natural accompaniment of a life spent in right-angled and horizontal postures. Thus management need recreation themselves if they are to keep fit for the job.

Many companies have recognized this problem, and have turned to physical activity programs as a solution.

The following statements were made by William B. Decarlo (17):

If one were to single out the major objective of the recreation program, it would certainly be to promote physical fitness.

Like any other company, Xerox is people. Its future rests with them and it has a substantial interest in them. It simply can't afford to have key people fall prey to disabling illnesses or worse.

Any change of pace injected into an employee's routine contributes to his resilience, his freshness, his general fitness - in short, to both his health and his job performance.

Fox and Skinner (18), in an article on physical activity and cardiovascular health, stated that:

Concurrent with a reduction in the requirements for physical activity in modern living there has been an increase in death and disability from cardiovascular diseases associated with "athero-thrombotic" processes. Although we do not consider a causal relationship established, some excellent studies suggest that physical inactivity may be one of possibly many factors involved in the increasing prominence of ischemic vascular disease, the most significant form of which is coronary heart disease.

Kilbom and associates (19) stated:

The results of population studies have suggested that men with sedentary occupations are more likely to develop arteriosclerotic cardiovascular diseases than those with heavy, non-sedentary work.

The question, of course, now arises. What exactly can physical activity do to improve a person's job performance and personal life? The following statement will indicate what physical activity can do in this direction.

A.H. Steinhaus (20), in a report from Tokyo said:

Many papers presented at the first International Congress of Sport Sciences dealt with the effects of training on heart and blood vessels. In general, they agreed that exercise will postpone the onset of changes that aging brings to the heart and blood vessels.

Linden (21) reported that:

People with normal or high physical fitness will, in the course of their daily work, draw on their energy to a smaller extent, and will generally not overtax their respiratory and circulatory systems.

Gottheiner (22) stated that:

Numerous clinical, experimental, and epidemiological studies have provided abundant evidence of a potentially beneficial effect exerted by habitual muscular activity (and of detrimental effect produced by lack of exercise) upon the metabolic, functional and structural health of the heart muscle.

M.H. Frick (23) noted, "In conclusion, the available data reveal that regular physical activity favourably affects cardiac oxygen requirements".

The following findings were reported by Fox and Skinner (16) first from work by Morris and associates:

Physical activity of work is a protection against coronary (ischaemic) heart disease. Men in physically active jobs have less coronary heart disease during middle age, what disease they have is less severe, and they develop it later than men in physically inactive jobs.

Second, from work by Brown and colleagues:

The data suggest that whatever the mental demands of

occupation, in relation to physical demands, there is a consistent increase in the frequency of the disease from work which is "very heavy" to work which is "sedentary". The difference associated with degree of physical activity was most marked in the higher rather than in the lower social groups.

Baley (24) in an article on recreation and the aging process, reported:

Several studies have shown that middle-aged men just as younger men, can improve their physical fitness status as indicated by tests of muscular strength, power and endurance, agility, and cardiovascular and respiratory efficiency through a program of progressive physical exercise.

Teraslinna (25) found that:

The change describing the development of susceptibility to cardiovascular disease can be brought about by the dual influence of:

A. The anxiety of a competitive society which develops the metabolic readiness to action.

B. The lack of opportunities for physical activities caused by the industrialized, mechanized and sedentary civilization.

Raab (26) stated that:

The incidence of disability and death from degenerative heart disease in the United States surpasses that of all other nations. Fifty-five per cent of all deaths are due to cardiovascular disease.

The leading Soviet cardiologist, Myasnikov, found the lowest morbidity among manual laborers. It is exceeded two-fold by that of employees, and four-fold by that of scientific workers burdened by greater responsibilities and intellectual emotional tensions.

In areas of the German Federal Republic, about twenty thousand fatigued and tense, but not yet overly sick patients are being reconditioned annually for four to six week periods without cost.

Campbell (27), in an article on leisure time profiles found that:

Psychologists and psychiatrists have established that tensions, conflict, and emotional strains are concomitants

of a complex civilization that can and do cause a number of physical ailments such as hypertension, cardiac troubles, and ulcers. The role that recreational activity can play in relieving these tensions has also been emphasized.

The foregoing statements illustrate the importance and necessity of habitual physical activity in one's life.

The review of literature has indicated that physical recreation programs for corporation personnel have become widespread throughout the United States, Japan and parts of Europe.

It was emphasized that physical recreation programs can benefit the individual as well as the company.

Statements such as those found in the review of literature indicate the need for a survey of Canadian corporations to determine whether or not they are in agreement with these points of view.

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CHAPTER III

METHODS AND PROCEDURES

METHODS

Questionnaire

To investigate the attitudes of business employees towards meaningful general and specific questions regarding physical activity programs, the questionnaire technique was selected. After careful examination of past studies, which made use of questionnaires and consultation with members of the Faculty of Business Administration at The University of Alberta, industrial psychologists, and corporation executives, a preliminary questionnaire was devised specifically for the study.

The use of a decision tree analysis which enables one to chronologically observe the various decisions available and their consequences was selected and the questionnaire was structured.

A pre-test was carried out by having thirty employees of the large firm complete the questionnaire under the supervision of the president of the employees union. Twenty males and ten females, of varying ages, were randomly selected. At the completion of the pre-testing, the questionnaire was restructured to remove any misunderstandings which might occur among subsequent respondents.

In consultation with the Division of Educational Research Services at The University of Alberta, a computer program which would handle the results of the questionnaire in the most meaningful way

was selected after running the coded results from the pre-test through the computer.

The NON P10 computer program was recommended as one which would effectively handle the results of the actual test. The finalized questionnaire has been included in Appendix A.

Nature of Sample

The sample consisted of 235 business employees, 110 males and 125 females of varying ages, randomly selected from one Edmonton company's total employee population of approximately 2,000. All the employees were from the same office building but represented eleven different departments.

Procedures

Lengthy and thorough discussions were held with the personnel manager and general manager of the particular sample company regarding the questionnaire and distribution of it. Arising out of these discussions was the decision to send a letter of explanation with each questionnaire. The letter explained that this was a research project approved by The University of Alberta and merely delved into the future. This protected the company management from the employees union asking for this program as an employee benefit.

The actual sample was obtained from the companies employee directorate book. The lists were then broken down into departments. The names of the people in each department that were chosen and the corresponding number of questionnaires were given to the department

manager for distribution and collection. The completed questionnaires were returned to the personnel manager.

The completed questionnaires were coded and then keypunched. The keypunched cards were subsequently run through the computer under conditions designed to yield frequency distributions.

After the data was received from the computer analysis, a comparison was made of the results to observe the percentage of respondents that agreed with a question, the percentage that were opposed as well as indifferent. This comparison was made for each age group and separate and combined sex categories.

CHAPTER IV

RESULTS AND DISCUSSION

A total of 300 questionnaires were distributed to respondents who were chosen by random sample of the company's total employee population. Of the total of 300 who received questionnaires, completed replies were received from 235 (78.3%). Of this 235, there were 110 males (46.8%) and 125 females (53.2%) (see Table I).

TABLE I
NUMBER OF PEOPLE IN EACH SEX CATEGORY

Single Males	20 (8.5%)	Single Females	49 (20.9%)
Married Males	24 (10.2%)	Married Females	51 (21.7%)
Married Males with Children	66 (28.1%)	Married Females with Children	25 (10.6%)
TOTAL	110 (46.8%)	TOTAL	125 (53.2%)

Each respondent was categorized according to a particular age bracket (see Table II).

TABLE II

PERCENTAGE OF MALES AND FEMALES IN EACH AGE BRACKET

AGE BRACKET	MALES (%)	FEMALES (%)	AVERAGE (%)
15 - 20	2.7	26.4	15.3
21 - 25	12.7	39.2	26.8
26 - 30	21.8	17.6	19.6
31 - 35	30.0	5.6	17.0
26 - 40	9.1	3.2	6.0
41 - 45	6.4	1.6	3.8
46 - 50	11.8	2.4	6.8
51 - 55	4.5	2.4	3.4
56 - 60	0.0	0.8	0.4
61 and over	0.9	0.8	0.9

The age brackets were combined for all respondents, and this gave a total of four (4) groups which will be referred to as groups 1, 2, 3 and 4 in all future references or tables (see Table III).

TABLE III

PERCENTAGE OF MALES AND FEMALES IN COMBINED AGE BRACKETS

<u>AGE</u>	<u>GROUP</u>	<u>MALES (%)</u>	<u>FEMALES (%)</u>	<u>AVERAGE (%)</u>
15-25	1	15.5	65.6	42.1
26-35	2	51.8	23.2	36.3
36-45	3	15.5	4.8	9.8
46 and over	4	17.3	6.4	11.5

Discussion of Tables I and III

The statistics concerning age and sex categorization are quite straightforward.

Table I shows that there are more married males with children (28.1%) than married females with children (10.6%). This is quite normal in our society because when a woman has children she generally quits working. The figure for single and married females (42.6%) compared to single and married males (18.7%) can be explained by the fact that there is a large female clerical staff.

The figures in Table III indicating combined age brackets show the majority of males being in the 26 - 35 age group (51.8%) and the majority of females being in the 15 - 25 age group (65.6%).

In Tables IV through XI the respondents were asked to reply to several questions according to criteria ranging from strongly agree (S.A.) to agree (A.) to indifferent (I.) to opposed (O.) to strongly opposed (S.O.). The results are broken down into age groups and sex.

The respondents attitudes towards a supervised physical activity program in general are shown in Table IV.

TABLE IV
ATTITUDE TOWARDS PROGRAM IN GENERAL

<u>SEX</u>	<u>GROUP</u>	<u>S.A.</u>	<u>A.</u>	<u>I.</u>	<u>O.</u>	<u>S.O.</u>
Male (110)	1	35.3	47.1	5.9	11.8	0.0
	2	26.3	61.4	10.5	1.8	0.0
	3	5.9	76.5	11.8	5.9	0.0
	4	31.6	52.6	10.5	5.3	0.0
	<u>1,2,3,4</u>	<u>25.5</u>	<u>60.0</u>	<u>10.0</u>	<u>4.5</u>	<u>0.0</u>
Female(125)	1	31.7	57.3	9.8	0.0	1.2
	2	48.3	41.4	10.3	0.0	0.0
	3	66.7	33.3	0.0	0.0	0.0
	4	25.0	75.0	0.0	0.0	0.0
	<u>1,2,3,4</u>	<u>36.8</u>	<u>53.6</u>	<u>8.8</u>	<u>0.0</u>	<u>0.8</u>
Combined	1	32.3	55.6	9.1	2.0	1.0
Males and	2	33.7	54.7	10.5	1.2	0.0
Females	3	21.7	65.2	8.7	4.3	0.0
(235)	4	29.6	59.3	7.4	3.7	0.0
Average	<u>1,2,3,4</u>	<u>31.5</u>	<u>56.6</u>	<u>9.4</u>	<u>2.1</u>	<u>0.4</u>

Discussion of Table IV

The figures in Table IV for all age groups and both males and females show that the respondents in general favor a supervised physical

activity program. The figures for the combined males and females average of all age groups showed that 88.1% of the respondents were in agreement with the program, 2.5% were opposed and 9.4% were indifferent.

The respondents attitudes towards a physical activity program on company time without a reduction in pay are shown in Table V.

TABLE V
PROGRAM ON COMPANY TIME WITHOUT A REDUCTION IN PAY

<u>SEX</u>	<u>GROUP</u>	<u>S.A.</u>	<u>A.</u>	<u>I.</u>	<u>O.</u>	<u>S.O.</u>
Male (110)	1	41.2	23.5	5.9	29.4	0.0
	2	28.1	50.9	7.0	14.0	0.0
	3	0.0	64.7	5.9	23.5	5.9
	4	26.3	36.8	10.5	21.1	5.3
Average	1,2,3,4	25.5	46.4	7.3	19.1	1.8
Female (125)	1	40.2	39.0	13.4	3.7	3.7
	2	24.1	48.3	13.8	13.8	0.0
	3	33.3	16.7	16.7	0.0	33.3
	4	25.0	50.0	0.0	25.0	0.0
Average	1,2,3,4	35.2	40.8	12.8	7.2	4.0
Combined	1	40.4	36.4	12.1	8.1	3.0
Males and	2	26.7	50.0	9.3	14.0	0.0
Females	3	8.7	52.2	8.7	17.4	13.0
(235)	4	25.9	40.7	7.4	22.2	3.7
Average	1,2,3,4	30.6	43.4	10.2	12.8	3.0

Discussion of Table V

The figures in Table V for the combined males and females average of all age groups indicated that 74% of the respondents were in agreement with the question, 15.8% were opposed and 10.2% were indifferent. The relatively high figures for the total opposed and indifferent columns are explained by the fact that the respondents choosing those columns tended to misunderstand the question. This was quite apparent because of respondents comments analyzed later. The part of the question which read "without a reduction in pay" was misinterpreted to read "with a reduction in pay". As these people, quite naturally, did not want a reduction in pay, they checked the opposed or indifferent columns, thus raising those percentages.

The respondents attitudes towards the enhancing of company morale by the provision of a physical activity facility for company employees are shown in Table VI.

TABLE VI
WOULD THE FACILITY ENHANCE COMPANY MORALE?

<u>SEX</u>	<u>GROUP</u>	<u>S.A.</u>	<u>A.</u>	<u>I.</u>	<u>O.</u>	<u>S.O.</u>
Male (110)	1	35.3	35.3	29.4	0.0	0.0
	2	31.6	59.6	8.8	0.0	0.0
	3	17.6	58.8	11.8	5.9	5.9
	4	36.8	42.1	0.0	21.1	0.0
Average	1,2,3,4	30.9	52.7	10.9	45.	0.9

<u>SEX</u>	<u>GROUP</u>	<u>S.A.</u>	<u>A.</u>	<u>I.</u>	<u>O.</u>	<u>S.O.</u>
Female (123)	1	37.5	48.8	10.0	3.7	0.0
	2	41.4	41.4	17.2	0.0	0.0
	3	16.7	83.3	0.0	0.0	0.0
	4	25.0	75.0	0.0	0.0	0.0
Average	1,2,3,4	36.6	50.4	10.6	2.4	0.0
Combined	1	37.1	46.4	13.4	3.1	0.0
Males and	2	34.9	53.5	11.6	0.0	0.0
Females	3	17.4	65.2	8.7	4.3	4.3
	4	33.3	51.5	0.0	14.8	0.4
Average	1,2,3,4	33.9	51.5	10.7	3.4	0.4

Discussion of Table VI

The figures in Table VI for the combined males and females average of all age groups showed that 85.4% of the respondents felt that company morale would be enhanced, 3.8% were opposed, and 10.7% were indifferent. It is interesting to note that in the females groups three (36 - 45) and four (46 and over), the respondents were 100% in agreement that a facility would enhance company morale. These two groups only constituted 11.2% of the total female population (see Table III). However, as these women are older and have presumably been with the company longer than the women in groups one and two, their total agreement tends to be an important figure. The males group four (46 and over) had the largest percentage opposed 21.1% but they were also 78.9% in agreement. The opposed percentage might tend to result

from a number of the respondents feeling they couldn't take part because of health reasons. Therefore, their morale towards the company would not be increased.

The respondents attitudes toward whether the company should provide some form of a physical activity program are shown in Table VII.

TABLE VII
SHOULD COMPANY PROVIDE SOME PROGRAM?

<u>SEX</u>	<u>GROUP</u>	<u>S.A.</u>	<u>A.</u>	<u>I.</u>	<u>O.</u>	<u>S.O.</u>
Male (110)	1	41.2	41.2	5.9	11.8	0.0
	2	28.1	45.6	24.6	1.8	0.0
	3	0.0	70.6	17.6	11.8	0.0
	4	42.1	31.6	5.3	15.8	5.3
Average	1,2,3,4	28.2	46.4	17.3	7.3	0.9
Female (124)	1	30.5	51.2	14.6	3.7	0.0
	2	37.9	62.1	0.0	0.0	0.0
	3	33.3	66.7	0.0	0.0	0.0
	4	28.6	57.1	1.0	14.3	0.0
Average	1,2,3,4	32.3	54.8	9.7	3.2	0.0
Combined	1	32.3	49.5	13.1	5.1	0.0
Males and	2	31.4	51.2	16.3	1.2	0.0
Females	3	8.7	69.6	13.0	8.7	0.0
(234)	4	38.5	38.5	3.8	15.4	3.8
Average	1,2,3,4	30.3	50.9	13.2	5.1	0.4

Discussion of Table VII

The figures in Table VII for the combined males and females average of all age groups showed that 81.2% of the respondents felt that the company should provide some form of a physical activity program while 5.5% were opposed and 13.2% were indifferent. The figures for the male average showed the respondents were 74.6% in favour while the female respondents were 87.1% in favour. The difference here may be due to the fact that the males have more opportunity for physical activity outside of work where many of the females do not.

The respondents attitudes toward a recreation facility being contained within an office structure so it would not be necessary for them to leave the building in order to participate in an activity program are shown in Table VIII.

TABLE VIII
FACILITY WITHIN AN OFFICE STRUCTURE

<u>SEX</u>	<u>GROUP</u>	<u>S.A.</u>	<u>A.</u>	<u>I.</u>	<u>O.</u>	<u>S.O.</u>
Male (110)	1	41.2	52.9	5.9	0.0	0.0
	2	49.1	40.4	8.8	1.8	0.0
	3	5.9	70.6	11.8	11.8	0.0
	4	42.1	31.6	5.3	10.5	10.5
Average	1,2,3,4	40.0	45.5	8.2	4.5	1.8

<u>SEX</u>	<u>GROUP</u>	<u>S.A.</u>	<u>A.</u>	<u>I.</u>	<u>O.</u>	<u>S.O.</u>
Female (125)	1	50.0	39.0	8.5	2.4	0.0
	2	58.6	41.4	0.0	0.0	0.0
	3	66.7	33.3	0.0	0.0	0.0
	4	25.0	62.5	0.0	12.5	0.0
Average	1,2,3,4	51.2	40.8	5.6	2.4	0.0
Combined	1	48.5	41.4	8.1	2.0	0.0
Males and	2	52.3	40.7	5.8	1.2	0.0
Females	3	21.7	60.9	8.7	8.7	0.0
(235)	4	37.0	40.7	3.7	11.1	7.4
Average	1,2,3,4	46.0	43.0	6.8	3.4	0.9

Discussion of Table VIII

The figures in Table VIII for the combined males and females average of all age groups indicted that 89.0% were in favour of a facility within an office structure, 4.3% were opposed, and 6.8% were indifferent. The reason for the high percentage in favour may be that many people become disgruntled with noon hour workouts when they have to travel to a facility somewhere else in the city. A facility located in their own building would allow for a longer "workout" and a more leisurely shower before returning to work.

The respondents attitudes toward involving their families in a company sponsored program are shown in Table IX.

TABLE IX
INVOLVING FAMILIES IN A PROGRAM

<u>SEX</u>	<u>GROUP</u>	<u>S.A.</u>	<u>A.</u>	<u>I.</u>	<u>O.</u>	<u>S.O.</u>
Male (110)	1	11.8	47.1	17.6	17.6	5.9
	2	26.3	45.6	15.8	8.8	3.5
	3	0.0	52.9	17.6	23.5	5.9
	<u>4</u>	<u>21.1</u>	<u>47.4</u>	<u>21.1</u>	<u>5.3</u>	<u>5.3</u>
Average	1,2,3,4	19.1	47.3	17.3	11.8	4.5
Female (123)	1	24.7	45.7	21.0	4.9	3.7
	2	27.6	44.8	24.1	3.4	0.0
	3	33.3	16.7	16.7	33.3	0.0
	<u>4</u>	<u>14.3</u>	<u>42.9</u>	<u>28.6</u>	<u>14.3</u>	<u>0.0</u>
Average	1,2,3,4	25.2	43.9	22.0	6.5	2.4
Combined	1	22.4	45.9	20.4	7.1	4.1
Males and	2	26.7	45.3	18.6	7.0	2.3
Females (233)	3	8.7	43.5	17.4	26.1	4.3
	<u>4</u>	<u>19.2</u>	<u>46.2</u>	<u>23.1</u>	<u>7.7</u>	<u>3.8</u>
Average	1,2,3,4	22.3	45.5	19.7	9.0	3.4

Discussion of Table IX

The figures in Table IX for the combined males and females average of all age groups showed that 67.8% were in favour of involving their families in a physical activity program, 12.4% were opposed, while 19.7% were indifferent.

The respondents attitudes toward a company sponsored physical activity program being conducted as an employee benefit are shown in Table X.

TABLE X
PROGRAM OFFERED AS AN EMPLOYEE BENEFIT

<u>SEX</u>	<u>GROUP</u>	<u>S.A.</u>	<u>A.</u>	<u>I.</u>	<u>O.</u>	<u>S.O.</u>
Male (110)	1	47.1	29.4	5.9	11.8	5.9
	2	24.6	52.6	17.5	5.3	0.0
	3	11.8	64.7	11.8	5.9	5.9
	4	26.3	47.4	15.8	5.3	5.3
	Average	26.4	50.0	14.5	6.4	2.7
Female (124)	1	32.9	48.8	13.4	2.4	2.4
	2	27.6	55.2	17.2	0.0	0.0
	3	16.7	66.7	16.7	0.0	0.0
	4	28.6	42.9	14.3	14.3	0.0
	Average	30.6	50.8	14.5	2.4	1.6
Combined	1	35.4	45.5	12.1	4.0	3.0
Males and	2	25.6	53.5	17.4	3.5	0.0
Females (234)	3	13.0	65.2	13.0	4.3	4.3
	4	26.9	46.2	15.4	7.7	3.8
Average	1,2,3,4	28.6	50.4	14.5	4.3	2.1

Discussion of Table X

The figures in Table X for the combined males and females average of all age groups indicated that 79.0% were in favour of a physical activity program being operated as an employee benefit, 6.4% were opposed, and 14.5% were indifferent. A reason why the figure for those in favour was not higher is that some employees felt that by being given another benefit, management could keep their salaries at a lower level. However, with 14.5% of the respondents being indifferent, it indicates that most of the employees were in favour of the program whether they had to help pay for it or not.

The respondents attitudes toward a physical activity program being run by a company on a compulsory basis are shown in Table XI.

TABLE XI
COMPULSORY PROGRAM

<u>SEX</u>	<u>GROUP</u>	<u>S.A.</u>	<u>A.</u>	<u>I.</u>	<u>O.</u>	<u>S.O.</u>
Male (110)	1	5.9	5.9	17.6	35.3	35.3
	2	8.8	14.0	7.0	38.6	31.6
	3	0.0	35.3	17.6	23.5	23.5
	4	21.1	5.3	5.3	31.6	36.8
Average	1,2,3,4	9.1	14.5	10.0	34.5	31.8

<u>SEX</u>	<u>GROUP</u>	<u>S.A.</u>	<u>A.</u>	<u>I.</u>	<u>O.</u>	<u>S.O.</u>
Female (124)	1	14.6	7.3	13.4	29.3	35.4
	2	10.3	17.2	6.9	41.4	24.1
	3	0.0	0.0	33.3	33.3	33.3
	4	14.3	14.3	0.0	42.9	28.6
Average	1,2,3,4	12.9	9.7	12.1	33.1	32.3
Combined	1	13.1	7.1	14.1	30.3	35.4
Males and	2	9.3	15.1	7.0	39.5	29.1
Females (234)	3	0.0	26.1	21.7	26.1	26.1
	4	19.2	7.7	3.8	34.6	34.6
Average	1,2,3,4	11.1	12.0	11.1	33.8	32.1

Discussion of Table XI

The figures in Table XI showed that the males were 66.3% opposed to a physical activity program being run by a company on a compulsory basis, 23.6% in favour, and 10.0% were indifferent. The female respondents were 65.4% opposed, 22.6% in favour, and 12.1% were indifferent. The figures for the combined males and females average of all age groups indicated that 65.9% were opposed to a compulsory program, 23.1% were in favour, while 11.1% were indifferent. The results to this question were very interesting in that they did not show an overwhelming opposition to a compulsory activity program. Thus, indications are, that if a compulsory program was presented in an appropriate manner, and the many benefits fully explained, such a program would have a reasonable chance to succeed, and has great potential for the physical well-being of Canadians.

However, it is realized that a program of this kind could not be implemented presently, but rather lies somewhere in Canada's future.

The respondents attitudes toward whether one hour of their working day devoted to physical activity would result in a decrease in their previous daily production are shown in Table XII.

TABLE XII
WILL ACTIVITY TIME DECREASE DAILY PRODUCTION?

<u>SEX</u>	<u>YES</u>	<u>NO</u>	<u>UNDECIDED</u>
Male (110)	31.8	50.9	17.3
Female (125)	24.8	56.0	19.2
Males and Females (235)	28.1	53.6	18.3

Discussion of Table XII

The figures in Table XII for the combined males and females showed that 53.6% did not feel that their daily production would be decreased if one hour of their working day was devoted to physical activity, 28.1% felt their production would decrease, while 18.3% were undecided. This is a very important question as management might tend to give employees an activity hour if daily production for their employees did not decrease. The figures, while not overwhelming, do indicate that this type of program has an extremely good chance to succeed.

The respondents' attitudes toward paying a nominal fee for the use of a facility are shown in Table XIII.

TABLE XIII
WILLINGNESS TO PAY A FEE

<u>SEX</u>	<u>YES</u>	<u>NO</u>
Male (110)	89.1	10.9
Female (124)	87.9	12.1
Males and Females (234)	88.5	11.5

Table XIV indicated the amount per month that the respondents were willing to pay.

TABLE XIV
AMOUNT PER MONTH WILLING TO PAY

<u>SEX</u>	<u>0-.50¢</u>	<u>.51-1.00</u>	<u>\$1.01-1.50</u>	<u>\$1.51-2.00</u>	<u>\$2.01-2.50</u>
Male (98)	1.0	15.3	22.4	25.5	35.7
Female (107)	6.5	17.8	27.1	22.4	26.2
Males and Females (205)	3.9	16.6	24.9	23.9	30.7

Discussion of Tables XIII and XIV

The figures in Table XIII for the combined males and females showed that 88.5% of the respondents were willing to pay a fee while 11.5% were opposed. This is a very important figure as it indicates to management that the employees are willing to share in the costs of implementing a physical activity program. Of the 88.5% who said they were willing to pay a fee, 3.9% would pay 0 - .50¢ monthly, 16.6% would

pay 51¢ - \$1.00, 24.9% would pay \$1.01 - \$1.50, 23.9% would pay \$1.51 - \$2.00, 30.7% would pay \$2.01 - \$2.50. These figures appear to be extremely encouraging.

The figures in Table XV show the average amount of money per month and per year for the 205 employees who were willing to pay a fee. The figures in Table XV also show the average amount of money per month per employee.

TABLE XV
AMOUNT OF MONEY

<u>MONEY CATEGORY</u>	<u>RESPONDENTS</u>	<u>MEAN AMOUNT</u>	<u>TOTAL</u>
0- .50¢	8	.25¢	\$2.00/month
.51¢-\$1.00	34	.75¢	\$25.50/month
\$1.01-\$1.50	51	\$1.25	\$63.75/month
\$1.51-\$2.00	49	\$1.75	\$85.75/month
\$2.01-\$2.50	63	\$2.25	\$141.75/month

TOTAL \$318.75/month for 205 employees

or \$3,825/year for 205 employees

$$\frac{\$318.75/\text{month}}{205 \text{ employees}} = \$1.55/\text{month/employee}$$

The respondents preferences for the period of the day they would use a physical activity facility are shown in Table XVI.

TABLE XVI
PERIOD OF DAY

SEX	8-9a.m.	9-10	10-11	11-12	12-1p.m.	1-2	2-3	3-4	4-5
Male (106)	17.0	0.9	2.8	10.4	16.0	13.2	2.8	16.9	20.8
Female (124)	13.7	4.0	3.2	8.1	15.3	11.3	10.5	16.9	16.9
Total (23)	15.2	2.6	3.0	9.1	15.7	12.2	7.0	16.5	18.7

Discussion of Table XVI

In order for a facility to be feasible, the time of employee "work-outs" must be spread throughout the whole day. As can be seen in Table XVI, the figures showed that there is a fairly even distribution. It was quite interesting to note that the noon hour is not the most preferred time and the early morning time slot almost equals the noon hour. The most preferred time is the last hour the day.

The respondents preferences toward days of the week are shown in Table XVII

TABLE XVII
DAYS OF THE WEEK

SEX	MONDAY		TUESDAY		WEDNESDAY		THURSDAY		FRIDAY		SATURDAY	
	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO
Male(106)	46.2	53.8	38.7	61.3	50.9	49.1	43.4	56.6	46.2	53.8	9.4	90.6
Female(124)	41.9	58.1	37.9	62.1	59.7	40.3	33.7	61.3	42.7	57.3	8.9	91.1
Total(230)	43.9	56.1	38.3	61.7	55.7	44.3	40.9	59.1	44.3	55.7	9.1	90.9

Discussion of Table XVII

The successful operation of a physical activity facility in regard to having enough area for participants depends on a fairly even distribution of participants on each day. The results in Table XVII indicated that this could be accomplished. The figures showed that 42.9% of the employees would participate on Monday, 38.3% on Tuesday, 55.7% on Wednesday, 40.9% on Thursday, 44.3% on Friday, and 9.1% on Saturday. The Saturday figure being so low would enable the management to rent the facility on the weekends if it became necessary to defray costs.

The respondents' preferences toward a sauna (dry heat) or a steam room facility besides showers, for use at the end of their activity period, are shown in Table XVIII.

TABLE XVIII

SAUNA OR STEAM FACILITY

<u>SEX</u>	<u>SAUNA</u>	<u>STEAM</u>
Male (105)	47.6	52.4
Female (123)	69.9	30.1
Total (228)	59.6	40.4

Discussion of Table XVIII

The figures in Table XVIII for the combined males and females indicated that 59.6% preferred a sauna room and 40.4% preferred a steam room. An interesting figure was that 69.9% of the females

preferred a sauna room, and only 47.6% of the males preferred a sauna room. It might be speculated that a possible reason for this discrepancy may be the fact that women may be more familiar with what a sauna room is as compared to a steam room, as a majority of high rise apartment blocks and health spas contain sauna rooms.

The respondents' preferences for various activities are shown in Table XIX, on a scale ranging from most preferred (1) to least preferred (5). The activities which received the most first, second, third, fourth and fifth choices for males and females are shown, as well as the total number of choices for each category.

TABLE XIX
ORDER OF CHOICE

ACTIVITIES	SEX	CHOICE					TOTAL
		1(MOST)	2	3	4	5(LEAST)	
BASKETBALL	M	5	14	4	9	1	33
	F	7	12	15	18	16	68
	TOTAL	12	26	19	27	17	101
VOLLEYBALL	M	11	16	9	11	12	59
	F	11	22	26	18	9	86
	TOTAL	22	38	35	29	21	145
KEEP-FIT	M	18	18	14	11	10	71
	F	52	24	16	5	11	108
	TOTAL	70	42	30	16	21	179

ACTIVITIES	SEX	CHOICE					TOTAL
		1 (MOST)	2	3	4	5 (LEAST)	
FLOOR HOCKEY	M	5	4	8	6	9	32
	F	2	1	5	4	4	16
	TOTAL	7	5	13	10	13	48
BADMINTON	M	7	8	18	15	10	58
	F	14	20	23	21	11	89
	TOTAL	21	28	41	36	21	147
JOGGING	M	3	10	9	5	8	35
	F	1	6	8	11	10	36
	TOTAL	4	16	17	16	18	71
JUDO	M	3	3	9	8	7	30
	F	3	2	8	14	8	35
	TOTAL	6	5	17	22	15	75
KARATE	M	2	3	2	3	9	19
	F	0	2	3	4	4	13
	TOTAL	2	5	5	7	13	32
WEIGHT- LIFTING	M	2	2	4	12	8	28
	F	1	1	0	0	5	7
	TOTAL	3	3	4	12	13	35
SWIMMING	M	44	18	16	12	6	96
	F	30	28	11	10	20	99
	TOTAL	74	46	27	22	26	195

ACTIVITIES	SEX	CHOICE					TOTAL
		1(MOST)	2	3	4	5(LEAST)	
HANDBALL	M	4	10	7	6	15	42
	F	0	1	0	4	8	13
	TOTAL	4	11	7	10	23	55
PADDLEBALL	M	0	0	1	3	0	4
	F	0	2	2	2	2	8
	TOTAL	0	2	3	5	2	12
SQUASH	M	1	2	3	0	4	10
	F	0	0	1	1	1	3
	TOTAL	1	2	4	1	5	13

Discussion of Table XIX

The figures in Table XIX for the combined males and females showed that swimming received the most first choices with 74, keep fit sessions received the most second choices with 42, badminton received the most third choices with 41, volleyball received the most fourth choices with 29, and handball received the most fifth choices with 23.

The figures in Table XIX for the combined males and females indicated that swimming had the most overall selections with 195, followed by keep fit second with 179, badminton third with 147, volleyball fourth with 145, and basketball fifth with 101 selections.

The figures from Table XIX indicated that the two most important parts of a total facility would be a gymnasium and a swimming pool.

The necessity for courts only showed up as a fifth choice for males (see Table XIX).

The interest of the respondents in participating in a program if facility (A), a gymnasium, was provided, but either facility (B), a pool, or (C), courts, or both could not be provided are shown in Table XX.

TABLE XX
SUPPORT OF PROGRAM IF FACILITY (A) ONLY PROVIDED

<u>SEX</u>	<u>YES</u>	<u>NO</u>	<u>UNDECIDED</u>
Male	88.0	1.9	10.2
Female	94.3	1.6	4.1
Males and Females	91.3	1.7	6.9

Discussion of Table XX

The figures in Table XX for combined males and females indicated that 91.3% of the respondents would participate in the program if only a gymnasium could be provided, 1.7% would not participate, and 6.9% were undecided. These figures were extremely encouraging since swimming was the activity that was the most popular.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

SUMMARY

The purpose of this study was to attempt to ascertain the need for the feasibility of the formation of employee supervised physical activity programs within large corporations.

In addition to revealing need, the study determined preferred periods of the day, activity and facility preferences, projected monetary revenue, and facility use load for each day.

A random sample of one Edmonton company's total employee population of approximately 2,000 determined a test group of 300.

A questionnaire was given to each person in this group. The 235 returned questionnaires represented 78.3% of the total possible 300 employees.

Of the 235 responding, 110 (46.8%) were males and 125 (53.2%) were females.

Of the combined males and females, 42.1% were in age group one (15 - 25), 36.6% were in age group two (26 - 35), 9.8% were in age group three (36 - 45) and 11.5% were in age group four (46 and over).

It was of interest to note that 88.1% of the combined males and females were in favour of a supervised physical activity program in general, 2.5% were opposed and 9.4% were indifferent (see Table IV).

The combined respondents were 74% in favour of a physical activity program on company time without a reduction in pay (see Table V).

Of the 233 respondents, 85.4% agreed that a physical activity facility for company employees would enhance company morale (see Table VI).

Of the total respondents, 89.0% felt the activity facility should be contained within an office complex for easier accessibility (see Table VIII).

The combined males and females were 79.0% in agreement towards a company sponsored physical activity program being operated as an employee benefit (see Table X).

A total of 53.6% felt that one hour of their working day devoted to physical activity would not result in a decrease in their previous daily production (see Table XII).

Of the 234 respondents, 205 (88.5%) were willing to pay a fee for the facility and program operation (see Table XIII).

Of the 205 employees willing to pay, the average amount per month per employee was \$1.55 (see Table XV).

As indicated in Table XVI there was a fairly even distribution of respondents willing to participate in the various periods of the day.

The results in Table XVII indicated an extremely good distribution of respondents participating on each day.

Swimming was the most preferred activity, as shown in Table XX, a keep-fit program was second, badminton was third, volleyball was fourth and basketball was fifth.

The combined males and females indicated that 91.3% would support the program if only a gymnasium could be provided (see Table XXI).

CONCLUSIONS

Information gathered in this study indicated that there was a favourable response toward a physical activity program for corporation personnel. This statement received credence from the statistics which came out of this particular study. Of 235 respondents, 207 (88.1%) are in favour of an activity program in general. Of 234 respondents, 190 (81.2%) felt their company should provide some form of a physical activity program. Of 234 respondents, 205 (88.5%) were willing to pay an approximate \$1.55 per employee per month or \$18.60 a year. Results indicated that the facility would be in use all days of the work week with at least 38.3% of the employees, and that all periods of the day from 8:00 a.m. till 5:00 p.m. would be used by at least 2.6% of the employees with no one period being overcrowded.

Of 231 respondents, 211 (91.3%) indicated they would support the program even if only a gymnasium could be provided.

From the foregoing, it may be concluded that provision of a suitable facility for a company's employees and executives to participate in a supervised physical activity program would be an extremely worthwhile endeavour for Canadian corporations.

RECOMMENDATIONS

Following are a number of recommendations that are based on the results of this study.

1. A complete Canadian study should be carried out to determine the attitude of employees towards a physical activity program within large corporations.
2. A study should be carried out to determine the total cost of building and equipping a facility on one floor of a large office building.
3. A study should be carried out to fully investigate the possibilities of compulsory or voluntary physical activity programs for Canadian corporations and the various ramifications of such programs for employer and employee.
4. An investigation into other avenues of corporate physical recreation should be undertaken.

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APPENDIX "A"



This questionnaire is a research project of the University of Alberta, primarily the Faculty of Physical Education.

Your company has been most co-operative in granting permission to have this questionnaire circulated.

However, it should be understood that a facility of this nature could not be implemented into a Canadian Corporation for at least five to ten years. This project is merely delving into the future.

Your understanding and co-operation in completing this questionnaire is greatly appreciated.

H.J. McLachlin, Ph.D.,
Associate Dean,
Faculty of Physical Education

QUESTIONNAIRE

The objective of this questionnaire is to determine your attitude (1) towards employee participation in a supervised physical activity program for a company, and (2) towards a recreation facility being contained within an office structure.

(1) Please check your appropriate category.

single male _____	married female _____
single female _____	married male with children _____
married male _____	married female with children _____

(2) Check your age bracket.

15 - 20 _____	41 - 45 _____
21 - 25 _____	46 - 50 _____
26 - 30 _____	51 - 55 _____
31 - 35 _____	56 - 60 _____
36 - 40 _____	61 and over _____

When asked for in the following questions, check your answer according to the following criteria.

Strongly opposed.....S.O.
 Opposed.....O.
 Indifferent.....I.
 Agree.....A.
 Strongly agree.....S.A.

- (3) What is your attitude towards a supervised physical activity program in general?

_____	_____	_____	_____	_____
S.A.	A.	I.	O.	S.O.

- (4) What is your attitude towards a physical activity program on company time without a reduction in pay?

_____	_____	_____	_____	_____
S.A.	A.	I.	O.	S.O.

- (5) In your opinion, would one hour of your working day devoted to physical activity result in a decrease in your previous daily production?

_____	_____	_____	_____	_____
S.A.	A.	I.	O.	S.O.

- (6) Do you feel that a physical recreation facility for company employees would enhance company morale?

_____	_____	_____	_____	_____
S.A.	A.	I.	O.	S.O.

- (7) Do you feel that your company should provide some form of physical activity program?

_____	_____	_____	_____	_____
S.A.	A.	I.	O.	S.O.

- (8) What is your attitude towards a recreation facility being contained within an office structure so it would not be necessary for you to leave the building in order to participate in an activity program?

_____	_____	_____	_____	_____
S.A.	A.	I.	O.	S.O.

(9) a. Would you be willing to pay a nominal fee for the use of this facility?

Yes

No

b. If yes, how much per month would you be willing to pay?
(Check only one bracket).

0 - \$.50 \$.50-1.00 \$1.00-1.50 \$1.50-2.00 \$2.00-2.50

(10) If a facility for physical activity was made available to you, at what period of the day would you prefer to use it?

Check a preferable time below. (only one)

8 - 9 A.M. _____	1 - 2 P.M. _____
9 - 10 A.M. _____	2 - 3 P.M. _____
10 - 11 A.M. _____	3 - 4 P.M. _____
11 - 12 A.M. _____	4 - 5 P.M. _____
12 - 1 P.M. _____	

(11) On what day of the week would you prefer to use this facility?
(You may check more than one day)

Mon. Tues. Wed. Thurs. Fri. Sat.

- (12) a. What types of activities would you like to see incorporated in an activity program? Number off from 1 to 5 in order of preference for the activities listed below. (1 - most preferred; 5 - least preferred).

<u>Gymnasium (A)</u>	<u>Pool (B)</u>	<u>Courts (C)</u>
basketball _____	swimming _____	handball _____
volleyball _____		paddleball _____
keep fit exercise class _____		squash _____
floor hockey _____		
badminton _____		
jogging _____		
judo _____		
karate _____		
weightlifting _____		

- b. If, in the above classification, facility (A) was provided but either facility (B) or (C) or both could not be provided, would you still be interested in participating in the program?

_____	_____	_____
Yes	No	Undecided

- (13) Would you prefer a sauna (dry heat) or a steam room facility for use at the end of your activity period? (Showers are included with both types).

_____	_____
Sauna	Steam

(14) What would your attitude be towards involving your family
in a company sponsored program?

_____	_____	_____	_____	_____
S.A.	A.	I.	O.	S.O.

(15) What is your attitude towards a company sponsored physical
activity program being run as an employee benefit?

_____	_____	_____	_____	_____
S.A.	A.	I.	O.	S.O.

(16) What is your attitude towards a compulsory physical activity
program being run by a company?

_____	_____	_____	_____	_____
S.A.	A.	I.	O.	S.O.

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